UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 July 2010_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-8,10-33,35-48,50,51 and 53-55_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _37-44 and 55_ is/are allowed.

6)☒ Claim(s) _1-3,5,10-13,15-19,23-30,35,36,45-48,50,53 and 54_ is/are rejected.

7)☒ Claim(s) _4,6-8,14,20-22,31-33 and 51_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _22 September 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 45-48, 53 are rejected under 35 U.S.C. 101 because based upon consideration of all of the relevant factors with respect to the claim as a whole, claim(s) 45-48, 53 are held to claim an abstract idea, and is/are therefore rejected as ineligible subject matter under 35 U.S.C. 101. The rationale for this finding is explained below:

The claims are directed to facilitating methods, or operations and do not actually do the methods using a machine nor transformation.

Claim 50 could be patentable, with the correction of the parent claim, due to the operation comprising downloading, which is deemed as implicitly done by a machine.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 45, 50 are rejected under 35 U.S.C. § **103(a)** as being unpatentable over US

Patent No. 6,978,398 of Harper et al. referred hereinafter "Harper '398" in view of US Patent

No. 4,245,342 of Entenman.

Examiner notes that Harper '398 (see column 1 lines 8-12) incorporates by reference US

Patent No. 6, 629,266 of Harper et al. referred hereinafter "Harper '266", which is introduced in

the rejection below.

In regards to claim 45, Harper '398 discloses a method of facilitating protection

switching to enhance performance of a network system, comprising:

facilitating a protection switching configuration operation wherein a failure prediction

condition for at least a portion of a plurality of protected system elements is defined (see column

2 lines 23-26);

facilitating a failure confirmed protection switching operation in response to identifying

that the failure prediction condition for one of said protected has been met during operation of

said protected system elements (see column 6 lines 18-25);

facilitating an administrator-initiated protection switching operation in response to

receiving an administrator-issued protection switching initiation notification (see column 4 lines

20-27 of incorporated by reference Harpter '266) .

However, Harper '398 fails to explicitly disclose:

specifying a protection switching priority for at least a portion of said protected system

elements.

Entenman further discloses in case of multiple failures, allotting a spare device among the devices in accordance with a priority algorithm (see column 6 lines 38-42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harper and Enteman to allot a spare device among the devices in accordance with a priority algorithm, thus indicating specifying a protection switching priority for at least a portion of said protected system elements. A person of ordinary skill in the art could have been motivated to combine the teachings because Harper is concerned with failing over nodes for preventing degradation of performance (see figure 5b; column 1 lines 62-65, column 2 lines 23-26, and column 6 lines 39-42), and allotting a spare device among the devices in accordance with a priority algorithm, as per teachings of Entenman (see column 6 lines 38-42), constitutes as suitable known means for failing over nodes.

In regards to claims 50, Harper '398 in view of Entenman discloses the claim limitations as discussed above. Harper '398 further discloses:

downloading service information of the failure predicted one of said protected system elements to the protection system element after identifying the failure predicted one of said protected system elements (see column 2 lines 23-26);

confirming failure of the first failure predicted one of said protected system elements (see column (see column 6 lines 20-25); and

switching communication service supported by the failure predicted one of said protected system elements for being supported by to the protection system element after confirming said failure (see column 6 lines 20-25).

Claims 1-3,5,10,12-13, 15-19, 23,27,29-30,35,36 are rejected under 35 U.S.C. § **103(a)**

as being unpatentable over Harper '398 (which incorporates by reference Harper '266) in view

of Entenman and US Patent No. 4,769,761 of Downes et al. referred hereinafter "Downes".

In regards to claim 1, Harper '398 discloses a method of facilitating protection switching

to enhance performance of a network system, comprising:

identifying a failure predicted one (see column 2 lines 19-23) of a plurality of protected

system elements (see column 4 lines 23-27); and

implementing a protection switching operation for switching designated information from

the failure predicted one of said protected system elements to a protection system element (see

column 2 lines 23-26).

However, Harper '398 fails to explicitly disclose:

wherein identifying the failure predicted on of said protected system elements includes

assessing performance of said protected system elements based at least partially on an element

demerit point level of each one of said protected system elements

and at least partially on a protection switching priority for at least a portion of said

protected system elements.

Entenman further discloses in case of multiple failures, allotting a spare device among the

devices in accordance with a priority algorithm (see column 6 lines 38-42).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of Harper and Entenman to allot a spare device among the

devices in accordance with a priority algorithm, thus indicating at least partially on a protection

switching priority for at least a portion of said protected system elements. A person of ordinary

skill in the art could have been motivated to combine the teachings because Harper is concerned

with failing over nodes (see column 2 lines 23-26; figure 5b and column 6 lines 39-42), and

allotting a spare device among the devices in accordance with a priority algorithm, as per

teachings of Entenman (see column 6 lines 38-42), constitutes as suitable known means for

failing over nodes that further enables recovery of higher priority device.

Downes further discloses the concept of predicting a failure upon determination the error

count over a selected number of operations is above a criterion or threshold (see column 1 lines

60-65).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of Harper, Entenman, and Downes to further including

predicting a failure upon determination the error count over a selected number of operations is

above a criterion or threshold, thus indicating wherein identifying the failure predicted on of said

protected system elements includes assessing performance of said protected system elements

based at least partially on an element demerit point level of each one of said protected system

elements. A person of ordinary skill in the art could have been motivated to combine the

teachings because Harper is concerned with detecting degradation of performance of a computer

system (see column 1 lines 60-65), and monitoring the error count over a selected number of

operations, as per teachings of Downes (see column 1 lines 60-65), constitutes as suitable known

means to detect degradation of performance of a computer system.

In regards to claim 2, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Harper '398 further discloses wherein identifying the failure

predicted one of said protected system elements includes assessing at least one of a plurality of

failure prediction parameters of said protected system elements for determining when a failure

prediction condition has been met by one of said protected system elements (see column 9 lines

15-20 of incorporated by reference Harper '266).

In regards to claim 3, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Harper '398 further discloses

monitoring a failure prediction parameter of at least one of the plurality of protected

system elements (see column 9 lines 15-20 of incorporated by reference Harper '266); and

correlating a present state of the failure prediction parameter to a failure prediction

criterion for determining whether the failure prediction parameter has met a failure prediction

condition (see column 9 lines 15-20 of incorporated by reference Harper '266).

In regards to claim 5, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Harper '398 further discloses wherein the monitoring the failure

prediction parameter further comprises bridging the protection system element across the at least

one of the plurality of the protected system elements (see column 6 lines 13-17).

In regards to claim 10, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Downes further discloses wherein assessing performance of said

protected system elements includes determining when an element demerit point level of one of

said protected system elements has exceeded a predetermined element demerit point threshold

limit (see column 1 lines 60-65).

In regards to claim 12, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Downes further discloses wherein the element demerit point level

corresponds to a quantity of element demerit points accumulated over a designated period of time (see column 1 lines 60-65).

In regards to claim 13, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Downes further discloses wherein identifying the failure predicted one of said protected system elements includes determining that a rate of change of element demerit points for one of said protected system elements has exceeded a predetermined element demerit point rate of change (see column 1 lines 60-65).

In regards to claim 15, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Entenman further discloses determining that a protection switching priority among a collection of failure predicted system elements applies to the failure predicted one of said protected system elements (see column 6 lines 38-42).

In regards to claim 16, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Entenman further discloses wherein implementing the protection switching operation is initiated after determining that the protection switching priority applies to the failure predicted one of said protected system elements (see column 6 lines 38-42).

In regards to claim 17, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Entenman further discloses wherein determining that the protection switching priority applies to the failure predicted one of said protected system elements includes assessing a protection switching priority parameter for each system element of the collection of failure predicted system elements (see column 6 lines 38-42).

In regards to claim 18, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Downes further discloses wherein assessing the protection switching parameter includes assessing at least one of a parameter relating to element demerit points, a parameter relating to a rate of change of said element demerit points, a parameter relating to an element demerit point threshold limit, a parameter relating to a number of active connections, a parameter relating to a number of active service subscribers, a parameter designated in a service agreement, a mounted position in a network element, an administrator-assigned priority value, a data bit rate and a rate of change of the data bit rate (see column 1 lines 60-65).

In regards to claim 19, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Harper '398 further discloses:

downloading service information of the failure predicted one of said protected system elements to the protection system element after identifying the failure predicted one of said protected system elements (see column 6 lines 14-17);

confirming failure of the first failure predicted one of said protected system elements (see column 6 lines 18-25); and

switching communication service supported by the failure predicted one of said protected system elements for being supported by to the protection system element after confirming said failure (see column 6 lines 21-25).

In regards to claim 23, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Harper '398 further discloses wherein the protection system

element provides protection switching functionality exclusively for all of said protected system

elements (see column 6 lines 35-40).

In regards to claim 27, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Harper '398 further discloses wherein identifying the failure

predicted one of said protected system elements includes determining that a failure prediction

parameter associated with the failure predicted one of said protected system elements has

exceeded a failure prediction parameter first threshold limit (see column 9 lines 6-10 and 25-28

of incorporated by reference Harper '266).

In regards to claim 29, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Harper '398 further discloses wherein the protection system

element provides protection switching functionality exclusively for all of said protected system

elements (see column 6 lines 35-37).

In regards to claim 30, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Harper '398 further discloses configuring protection switching

variables associated with the protection switching operation (see column 9 lines 7-14 of

incorporated by reference Harper '266).

In regards to claim 35, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. Harper '398 further discloses wherein identifying the failure

predicted one of said protected system elements includes assessing a protection switching

operation initiation notification issued via a system administrator user interface (see column 4

lines 20-22 of incorporated by reference Harper '266).

In regards to claim 36, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Harper '398 further discloses:

downloading service information of the failure predicted one of said protected system elements to the protection system element after identifying the failure predicted one of said protected system elements (see column 6 lines 14-17);

switching communication service supported by the failure predicted one of said protected system elements for being supported by to the protection system element after downloading said service information (see column 6 lines 21-25).

Claims 11, 24-26, 28 are rejected under 35 U.S.C. § **103(a)** as being unpatentable over Harper '398 (which incorporates by reference Harper '266) in view of Entenman, Downes, and US Patent No. 6,771,440 of Smith.

In regards to claims 11 and 39, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. However, Harper '398 in view of Entenman and Downes fails to explicitly disclose:

wherein the predetermined element demerit point threshold limit is associated with a first level of failure probability, lower than an element demerit point threshold limit corresponding to a next higher level of failure probability.

Smith discloses a system wherein a first threshold triggers a predictive failure analysis and a second threshold greater than the first threshold signifies a failure (see column 6 lines 6-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harper, Entenman, Downes, and Smith to include a second threshold that signifies a failure in addition to a first threshold that predicts a failure, indicating wherein the predetermined element demerit point threshold limit is associated with a first level of failure probability, lower than an element demerit point threshold limit corresponding to a next higher level of failure probability. A person of ordinary skill in the art could have been motivated to combine the teachings because Harper discloses a first threshold that predicts a failure is to follow (see column 9 lines 7-14 and lines 25-30 of incorporated by reference Harper '266) and is further concerned with signifying a system element has failed (see column 6 lines 5-25) and having a second threshold that signifies a failure, as per teachings of Smith (see column 6 lines 6-20), provides a known and suitable means to signifying the system element has failed.

In regards to claims 24, Harper '398 in view of Entenman and Downes discloses the claim limitations as discussed above. Harper '398 further discloses:

wherein identifying the failure predicted one of said protected system elements includes determining that a failure prediction parameter associated with the failure predicted one of said protected system elements has exceeded a failure prediction parameter first threshold limit (see column 9 lines 6-10 and 25-28 of incorporated by reference Harper '266);

Harper further discloses said switching communication service is initiated in response to determining the protected system element has failed. Harper discloses if it is determined that the primary node has failed, then the process continues at which time the secondary node becomes the primary node (see column 6 lines 21-25).

However, Harper '398 in view of Entenman and Downes fails to explicitly disclose:

said switching communication service is initiated in response to the failure prediction parameter exceeding a failure prediction parameter second threshold limit different than the failure prediction parameter first threshold limit.

Smith discloses a system wherein a first threshold triggers a predictive failure analysis and a second threshold greater than the first threshold signifies a failure (see column 6 lines 6-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Harper, Entenman, Downes, and Smith to include a second threshold that signifies a failure in addition to a first threshold that predicts a failure, thus indicating said switching communication service is initiated in response to the failure prediction parameter exceeding a failure prediction parameter second threshold limit different than the failure prediction parameter first threshold limit. A person of ordinary skill in the art could have been motivated to combine the teaching because Harper discloses a first threshold that predicts a failure is to follow (see column 9 lines 7-14 and lines 25-30 of incorporated by reference Harper '266) and is further concerned with signifying a system element has failed (see column 6 lines 5-25) and having a second threshold that signifies a failure, as per teachings of Smith (see column 6 lines 6-20), provides a known and suitable means to signifying the system element has failed.

In regards to claim 25, Harper '398 in view of Downes, Entenman, and Smith discloses the claim limitations as discussed above. Smith further discloses:

wherein the failure prediction first threshold limit is associated with a first level of failure probability and the failure prediction second threshold limit is associated with a second level of failure probability higher than the first level of failure probability (see column 6 lines 12-13).

In regards to claim 26, Harper '398 in view of Downes, Entenman, and Smith discloses the claim limitations as discussed above. Harper '398 further discloses:

wherein identifying the failure predicted one of said protected system elements includes determining that a failure prediction parameter associated with the failure predicted one of said protected system elements has exceeded a failure prediction parameter first threshold limit (see column 9 lines 6-10 and 25-28 of incorporated by reference Harper '266);

Harper further discloses confirming failure includes determining the protected system element has failed (see column 6 lines 21-25).

However, Harper '398 in view of Entenman and Downes fails to explicitly disclose:

confirming failure includes determining that the failure prediction parameter has exceeded a failure prediction parameter second threshold limit different than the failure prediction parameter first threshold limit.

Smith discloses a system wherein a first threshold triggers a predictive failure analysis and a second threshold greater than the first threshold signifies a failure (see column 6 lines 6-20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harper, Entenman, Downes, and Smith to include a

second threshold that signifies a failure in addition to a first threshold that predicts a failure, thus

indicating confirming failure includes determining that the failure prediction parameter has

exceeded a failure prediction parameter second threshold limit different than the failure

prediction parameter first threshold limit. A person of ordinary skill in the art could have been

motivated to combine the teaching because Harper discloses a first threshold that predicts a

failure is to follow (see column 9 lines 7-14 and lines 25-30 of incorporated by reference Harper

'266) and is further concerned with signifying a system element has failed (see column 6 lines 5-

25) and having a second threshold that signifies a failure, as per teachings of Smith (see column

6 lines 6-20), provides a known and suitable means to signifying the system element has failed.

In regards to claim 28, Harper '398 in view of Entenman and Downes discloses the claim

limitations as discussed above. However, Harper '398 in view of Entenman and Downes fails to

explicitly disclose:

wherein implementing said protection switching operation is performed in response to

determining that the failure prediction parameter has exceeded a failure prediction parameter

second threshold limit different than the failure prediction parameter first threshold limit.

Smith discloses a system wherein a first threshold triggers a predictive failure analysis

and a second threshold greater than the first threshold signifies a failure (see column 6 lines 6-

20).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of Harper, Entenman, Downes, and Smith to include a

second threshold that signifies a failure in addition to a first threshold that predicts a failure, thus

indicating wherein implementing said protection switching operation is performed in response to

determining that the failure prediction parameter has exceeded a failure prediction parameter second threshold limit different than the failure prediction parameter first threshold limit. A person of ordinary skill in the art could have been motivated to combine the teaching because Harper discloses a first threshold that predicts a failure is to follow (see column 9 lines 7-14 and lines 25-30 of incorporated by reference Harper '266) and is further concerned with signifying a system element has failed (see column 6 lines 5-25) and having a second threshold that signifies a failure, as per teachings of Smith (see column 6 lines 6-20), provides a known and suitable means to signifying the system element has failed.

Claims 53 are rejected under 35 U.S.C. § **103(a)** as being unpatentable over Harper '398 (which incorporates by reference Harper '266) in view of Entenman and Smith.

In regards to claim 53, Harper '398 in view of Entenman discloses the claim limitations as discussed above. Harper '398 further discloses:

wherein identifying the failure predicted one of said protected system elements includes determining that a failure prediction parameter associated with the failure predicted one of said protected system elements has exceeded a failure prediction parameter first threshold limit (see column 9 lines 6-10 and 25-28 of incorporated by reference Harper '266);

Harper further discloses confirming failure includes determining the protected system element has failed (see column 6 lines 21-25).

However, Harper '398 in view of Entenman fails to explicitly disclose:

confirming failure includes determining that the failure prediction parameter has

exceeded a failure prediction parameter second threshold limit different than the failure

prediction parameter first threshold limit.

Smith discloses a system wherein a first threshold triggers a predictive failure analysis

and a second threshold greater than the first threshold signifies a failure (see column 6 lines 6-

20).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine the teachings of Harper, Entenman, and Smith to include a second

threshold that signifies a failure in addition to a first threshold that predicts a failure, thus

indicating confirming failure includes determining that the failure prediction parameter has

exceeded a failure prediction parameter second threshold limit different than the failure

prediction parameter first threshold limit. A person of ordinary skill in the art could have been

motivated to combine the teaching because Harper discloses a first threshold that predicts a

failure is to follow (see column 9 lines 7-14 and lines 25-30 of incorporated by reference Harper

'266) and is further concerned with signifying a system element has failed (see column 6 lines 5-

25) and having a second threshold that signifies a failure, as per teachings of Smith (see column

6 lines 6-20), provides a known and suitable means to signifying the system element has failed.

Claim 54 is rejected under 35 U.S.C. § **103(a)** as being unpatentable over Harper '398

(which incorporates by reference Harper '266) in view of Downes.

In regards to claim 54, Harper '398 discloses an apparatus capable of facilitating

protection switching, comprising:

a plurality of protected system element(see column 4 lines 23-27).

a protection system element including a data processor and capable of providing protection switching functionality for at least one of said protected system elements (see column 2 lines 23-26).

a data processor program wherein the data processor program is capable of enabling the protection system elements to facilitate (see column 2 lines 23-26.)

identifying a failure predicted one (see column 2 lines 19-23) of a plurality of protected system elements (see column 4 lines 23-27).

implementing a protection switching operation for switching designated information from the failure predicted one of said protected system elements to a protection system element (see column 2 lines 23-26).

However, Harper fails to explicitly disclose:

wherein identifying the failure predicted on of said protected system elements includes determining the rate of change of element demerit points for one of said protected system elements has exceeded a predetermined element demerit point rate of change threshold limit.

Downes discloses the concept of predicting a failure upon determination the error count over a selected number of operations is above a criterion or threshold (see column 1 lines 60-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harper and Downes to further including predicting a failure upon determination the error count over a selected number of operations is above a criterion or threshold, thus indicating wherein identifying the failure predicted on of said protected system elements includes determining the rate of change of element demerit points for

one of said protected system elements has exceeded a predetermined element demerit point rate

of change threshold limit. A person of ordinary skill in the art could have been motivated to

combine the teachings because Harper is concerned with detecting degradation of performance

of a computer system (see column 1 lines 60-65), and monitoring the error count over a selected

number of operations, as per teachings of Downes (see column 1 lines 60-65), constitutes as

suitable known means to detect degradation of performance of a computer system.

Allowable Subject Matter

2.   Claims 37-44, 55 are allowed.

3.   Claims 4, 6-8, 14, 20-22, 31-33 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Reasons for Allowance

4.   The following is an examiner's statement of reasons for allowance: When read as a

whole, claim 37 is allowable with respect to the combination of the limitations of the following:

        determining that a protection switching priority among a collection of failure predicted

system elements applies to the failure predicted one of said protected system elements; and

downloading said service information is performed after determining that the protection

switching priority applies to the failure predicted one of said protected system elements;

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Response to Arguments

5.   Applicant's arguments filed 7/26/10 have been fully considered but they are not fully

persuasive.

The arguments with respect to claim 37 is persuasive and the rejection has been lifted.

6.   In response to applicant's argument that there is no teaching, suggestion, or motivation to

combine the references, the examiner recognizes that obviousness may be established by

combining or modifying the teachings of the prior art to produce the claimed invention where

there is some teaching, suggestion, or motivation to do so found either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re*

Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d

1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d

1385 (2007). In this case, the prior office actions address this issue with respect to the argued

claims.

With respect to claim 45, the applicant has stated in his Remarks, dated 7/26/10, on page

22:

> In the Examiner's Response to Arguments, the Examiner alleges teaching "indicating
> 'facilitating an administrator-initiated protection switching operation in response to

receiving an administrator-issued protection switching initiation operations."' However, Applicant submits claim 45 recites, in relevant part, "facilitating an administrator-initiated protection switching operation in response to receiving an administrator-issued protection switching initiation notification." Thus, Applicant submits the Examiner has not alleged teaching or suggestion as to the subject matter of claim 45. Accordingly, Applicant submits the Examiner has not made a *prima facie* showing of obviousness with respect to claim 45. Therefore, Applicant submits claim 45 is in condition for allowance.

The examiner does not see a difference in what the applicant says the examiner teaches and what the claim recites, and, as such, the examiner interprets this is an admission that what the applicant says the examiner is teaching, in the prior action, is the same as the claim language.

With respect to claim 46 to 48, the applicant has persuaded the examiner to left the USC 103 rejection, but the USC 101 rejection is still in tact.

With respect to claim 50, the applicant has argued that Harper does not teach "downloading service information of the failure predicted one of said protected system elements to the protection system element after identifying the failure predicted one of said protected system elements". The examiner respectfully disagrees. Harper '398 teaches, in column 2, lines 23-26, of downloading the state of the failing node to another node.

With respect to claim 51, the applicant has persuaded the examiner to lift the rejection.

With respect to claim 1, the applicant argues that Downes does not teach the error logging to "each one of said protected system elements". The examiner wishes to clarify the error logging is the Downes teaching limitation and is combined the elements of Harper, not of Downes. The applicant also argues that Entenman does not teach multiple failures. The examiner respectfully disagrees. In the cited passage of Entenman (column 6, lines 36-42, Entenman explicitly teaches "multiple failures".

With respect to claim 2, the applicant argues that Harper does not teach the claim language. The examiner respectfully disagrees. Harper explicitly teaches, in the cited passage, the monitoring of the system and the triggering of an event when a specific point is reached. This fulfills the claim language as claimed.

With respect to claim 3, the applicant has argued that Harper does not teach correlating a present state of the failure prediction parameter to a prediction condition. The examiner respectfully disagrees and once again refers the applicant to claim 2 argument above, wherein the state of the node has met a state where a triggering event has occurred.

With respect to claim 5, the applicant argues that claim is not met by Harper. The examiner wishes to clarify that the monitoring aspect of the claim is met by Harper '266 and the bridging by Harper '398, as cited.

With respect to claim 6, the applicant has persuaded the examiner to lift the rejection.

With respect to claim 10, claim 1 stands rejected, so claim 10 falls rejected as well.

With respect to claim 12, the applicant has argued that Downes does not teach a designated period of time. The examiner respectfully disagrees. Downes, at least, implicitly teaches a period to perform the operations, otherwise, infinity would be included.

With respect to claim 13, the applicant has argued that Downes does not teach a rate of change. The examiner respectfully disagrees. Downes teaches a change in the number of error counts, and this count change is deemed as a rate of change.

With respect to claim 14, the applicant has persuaded the examiner to lift the rejection.

With respect to claim 15, the applicant argues that Entenman does not teach the claim language. The examiner respectfully disagrees. Entenman teaches allotting a spare among multiple modules with a failure therein.

With respect to claims 16 and 17, the applicant has argued the claim language. The examiner respectfully disagrees and directs the applicant to claim 15 argument above as applicable to this claim.

With respect to claim 18, the applicant argues the claim language, but the examiner directs the applicant to the alternate language of the claim, which Downes does teach.

With respect to claim 19, the examiner directs the applicant to the claim 50 argument above as applicable to this claim.

With respect to claims 20-22, the applicant has persuaded the examiner to lift the rejections.

With respect to claim 23, the applicant has argued that Harper does not teach the claim language. The examiner respectfully disagrees. Harper teaches a one-to-many embodiment with protection to this configuration.

With respect to claim 27, the examiner directs the applicant to claim 2 above for the applicable argument.

With respect to claim 29, the examiner directs the applicant to claim 23 above.

With respect to claim 30, claim 1 stands rejected, so claim 30 falls rejected as well.

With respect to claims 31-33, the applicant has persuaded the examiner to lift the rejections.

With respect to claim 35, the examiner directs the applicant to claim 45 above.

With respect to claim 36, the examiner directs the applicant to claim 50 above.

With respect to claim 11, 39:

7.   In response to applicant's argument that Smith is nonanalogous art, it has been held that a

prior art reference must either be in the field of applicant's endeavor or, if not, then be

reasonably pertinent to the particular problem with which the applicant was concerned, in order

to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977

F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the invention of Smith is combinable

with reciprocating desires of failure management of a computer system.

With respect to claim 28:

8.   In response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

With respect to claim 53, the examiner contends that Smith teaches two thresholds and

therefore meets the limitation.

With respect to claim 54, the examiner directs the applicant to claims1 and 13 above.

Further argued claims in the Remarks have already been addressed in prior Office

Actions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER S. MCCARTHY whose telephone number is (571)272-3651. The examiner can normally be reached on M-F, 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher S. McCarthy/
Primary Examiner, Art Unit 2113